

Outcome Oriented

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Issue 11

The Online Newsletter of the
Center for Outcome Measurement in Brain Injury (COMBI)

Measuring Up!

The COMBI continues to add more important scales to its resource center. As of July 2005 there are currently 26 measures featured and detailed in the COMBI.

Agitated Behavior Scale (ABS)
Alcohol and Substance use items
Apathy Evaluation Scale (AES)
Awareness Questionnaire (AQ)
Coma/Near Coma Scale (CNC)
Community Integration Questionnaire (CIQ)
Confusion Assessment Protocol (CAP)
The Craig Handicap Assessment and Reporting Technique (CHART)
The CHART Short Form (CHART-SF)
The Craig Hospital Inventory of Environmental Factors (CHIEF)
Disability Rating Scale (DRS)
Employment variables after TBI
The Family Needs Questionnaire (FNQ)
Functional Assessment Measure (FAM)
Functional Independence Measure (FIM)
Glasgow Outcome Scale (GOS)
Extended Glasgow Outcome Scale (GOS-E)
Levels of Cognitive Functioning Scale (LCFS)
Mayo Portland Adaptability Inventory (MPAI)
Mississippi Aphasia Screening Test (MAST)
Neurobehavioral Functioning Inventory (NFI)
The Orientation Log (O-Log)
The Patient Competency Rating Scale (PCRS)
Satisfaction With Life Scale (SWLS)
Service Obstacle Scale (SOS)
Supervision Rating Scale (SRS)

Out and About: The COMBI in Print and on the Web

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Since 1998, the Center for Outcome Measurement in Brain Injury (COMBI) has acted as an online resource for information on brain injury-related outcome and assessment scales. It was hoped that the COMBI would provide quality information and increase the consistency of scale usage in research. As its role is becoming more well known, the COMBI is now appearing in more peer-reviewed journal articles. The following are some of the more recent articles/projects to make use of and cite the COMBI:

Brandys C, Vander Laan R, Lemsky C, Waechter R (2002). Development of a comprehensive best practice brain injury model: Phase 2. Toronto Acquired Brain Injury Network. Toronto, Canada.

Lezak M (2004). Chapter 18: Observational methods, rating scales and inventories. In M Lezak, *Neuropsychological Assessment* (pp.736-767). New York: Oxford University Press.

Malec JF (2004). Comparability of Mayo-Portland Adaptability Inventory ratings by staff, significant others and people with acquired brain injury. *Brain Injury*, 18,563-575.

Mateo M (2003). Evaluation of patients with mild traumatic brain injury. *Lippincott's Case Management*, 8,203-207.

Tate R (2004). Assessing support needs for people with traumatic brain injury: the care and needs scale (CANS). *Brain Injury*, 18,445-460.

HOW TO CITE THE COMBI

If you find the information in the COMBI useful, please mention it when citing sources of information. The COMBI website may be cited as:

Santa Clara Valley Medical Center (2005). *The Center for Outcome Measurement in Brain Injury*. <http://www.tbims.org/combi> (access date).

The COMBI is a collaborative project funded by the National Institute on Disability and Rehabilitation Research. Citing the COMBI is a way of demonstrating the usefulness of this project. Please recognize the work of your colleagues in bringing this information to you.

COMBI ESTABLISHED INTERNATIONALLY

The COMBI is increasingly being cited and linked to by prominent international websites. Here are a few of the latest found:

Australian Society of Occupational Therapists
<www.ausot.com.au>

Brain Injury News and Information Blog (US)
<braininjury.blogs.com>

Canadian Institute for Health Information
<secure.cih.ca>

eMedicine
<www.emedicine.com/pmr/topic213.htm>
Article: Management and Staging of Traumatic Brain Injury. Smith DE, Greenwald BD.

Health & Disability Research Institute
(Boston University) <www.bu.edu/hdr>

International Congress of Neuropsychology in the Internet <www.serviciodc.com/congreso>

Measurement Excellence and Training Resource Information Center (VA). The VA resource for measurement issues. <www.measurementexperts.org>

The Norwegian Occupational Therapist Association
<www.netf.no>

Organising Medical Networked Information (UK)
A gateway to evaluated, quality Internet resources in health and medicine. <omni.ac.uk>

Performance of Emergency Medical Services in patients with Brain Injury from Traumatic Accidents (PEBITA-Switzerland). Swiss national database to study brain injury. <www.pebita.ch>

Videnscenter for Hjerneskade (The Brain Injury Resource Centre-Denmark). Development, gathering and distribution of information regarding brain injury. <www.vfhj.dk>

ZPID Institute for Psychology Information (Germany)
<www.zpid.de>



THE 2005 COMBI SCALES REVEALED

Scale	Purpose	Admin in Min	Items	Inpt/Community	Rater	Mode	Norms	Proprietary	Other populations
ABS	serial assessment of agitation	10	14	inpt/comm	clinician	observation	Yes	No	Alz,, cog impair
AES	evaluation of apathy	15	18	community	self, SO, clinician	in-person, phone, qstnr	No	No	Alz, CVA, Dep
AQ	measure of self-awareness	10	17-18	inpt/comm	self, SO, clinician	in-person, phone, qstnr	No	No	CVA, tumor, anoxia
CAP	measure of confusion	30	58	inpatient	clinician	in-person, observation	No	No	
CHART	measure of participation	15	32	community	self, proxy (SO)	in-person, phone, qstnr	Yes	No	SCI
CHART-SF	measure of participation	7-8	19	community	self, proxy (SO)	in-person, phone, qstnr	No	No	SCI
CHIEF	measure of environmental factors	10-15	25	community	self	in-person, phone, qstnr	Yes	No	Many disabilities
CIQ	community integration	10	15	community	self, proxy (SO)	in-person, phone, qstnr	No	No	
C/NC	assess low-level patients	15	11	inpatient	clinician	in-person	No	No	
Cog-Log	serial cognition measure	5-15	10	inpt/comm	clinician	in-person	Yes	No	CVA, tumor, anoxia
DRS	measure of disability	5-15	8	inpt/comm	clinician	in-person, phone, med rec	No	No	CVA
FAM	brain injury adjunct to the FIM	10-15	12	inpt/comm	clinician	in-person, phone, med rec	No	No	CVA
FIM(tm)	measure of disability	20-30	18	inpt/comm	clinician	in-person, phone, med rec	?	Yes	Many disabilities
FNQ	measure of family needs	10-15	40	inpt/outpt	SO	in-person, phone, qstnr	No	Yes	
GOS	measure of disability	3-5	1	inpt/comm	clinician	in-person, phone, med rec	?	No	Many disabilities
GOS-E	measure of disability	10	1	inpt/comm	clinician	in-person, phone, qstnr	No	No	
LCFS	assess cognitive functioning	3	1	inpt/comm	clinician	in-person	?	No	
MAST	communication & language skills	15	46	inpt/comm	clinician	in-person	No	No	CVA, epilepsy, tumor,
MPAI	measure of problems after BI	30	29 (35)	inpt/comm	self, SO, clinician	in-person	Yes	No	
NFI	measure of symptoms/behaviors	15	76	community	self, SO	questionnaire	?	Yes	
O-Log	measure of orientation	5	10	inpatient	clinician	in-person	No	No	
PCRS	measure of self-awareness	10-15	30	community	self, SO, clinician	in-person, phone, qstnr	Yes	No	
SOS	perceptions of BI services	5	6	community	self, SO	in-person, phone, qstnr	No	No	
SRS	measure of supervision received	3-5	1	inpt/comm	clinician, trained rater	in-person, phone	No	No	
SWLS	measure of life satisfaction	5	5	community	self	in-person, phone, qstnr	Yes	No	SCI

UNDERSTANDING THE TABLE

Scale: Only the acronym for each scale is included. For the complete names see Page 1.

Purpose: Only a very brief purpose is given. For more, see the COMBI.

Admin in Min: Administration time in minutes

Items: The number of questions or items in this measure.

Rater: Who would the appropriate rater be for this measure.

Mode: What are the acceptable modes for completing this measure.

Norms: Are there norms available for this measure.

Proprietary: Is this measure owned by an individual or organization.

Other Populations: What other populations has this measure been used with

TABLE KEY

Alz	Alzheimer's
BI	brain injury
comm	community
cog imp	cognitively impaired
CVA	cerebrovascular accident
dep	depression
inpt	inpatient
med rec	medical record abstracted
qstnr	questionnaire
SCI	spinal cord injury
SO	significant other

Assessing The COMBI

LOG FILES 101

Every time you access a web page, a record of what you did is created (a log file). Log files give webmasters information about you and what you looked at on the site. We use log files to assess how the COMBI is being used.

THE STATS

In the last 12 months (July 04 – June 05) the COMBI has logged in 267,000 visitors. That's over 700 users a day! During this period 593,000 pages of information were reviewed (that's 8,568 megabytes of data).

The COMBI logs show that 65% of our users are within the United States and 35% are from 110 other countries. The COMBI is especially popular in India, the United Kingdom, Australia, and Canada. Our biggest referrals come from Google, Yahoo, MSN, stroke-site.org, and the Brain Injury Association of America .

The COMBI newsletter, *Outcome Oriented*, is primarily disseminated in Portable Document Format (PDF) from the website. Over the last 12 months, 13,744 newsletters were downloaded by COMBI users.

Itemized scale activity is summarized in the table below. *Please, no waging.* ☑

Scale Activity (Number of Downloads or Visits)

July 2004 through June 2005

Scale	Activity
ABS	1263 downloads
AQ	4680 downloads
CAP	1972 downloads
CHART	2464 downloads
CHART-SF	1547 downloads
CHIEF	1998 downloads
CIQ	2245 downloads
CNC	2672 downloads
DRS	1318 downloads
EMPLOY	2017 downloads
FAM	6075 downloads
FIM	21518 visitors
FNQ	1868 visitors
GOS	11351 visitors
GOS-E	3579 visitors
LCFS	1514 downloads
MAST	1937 downloads
MPAI	10116 downloads
NFI	2284 visitors
O-LOG	1351 downloads
PCRS	4429 downloads
SOS	707 downloads
SRS	1402 downloads
SUBS	1645 downloads
SWLS	10120 visitors

Visitors are reported when scales are not available on the COMBI.

Future Directions

This is the fourth *Outcome Oriented* newsletter for this funding cycle (2002-2007). We are updating materials for all of our current measures. We are looking to add more training and testing materials for COMBI measures, and to make the existing materials more interactive (automatic email of results from testing exercises).

Please email us at <combi@tbi-sci.org> with your thoughts and suggestions. Let us know how we measure up! Thank you for allowing us to be your brain injury outcome measure resource! ☑

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This document is available online at:

<www.tbims.org/combi/combinews.html>

CREDIT TO OUR COLLABORATORS



The COMBI is a collaborative project of thirteen brain injury centers located across the US. Without the expertise of these centers this project would not be possible. We would like to offer special recognition to the individuals at these facilities who have taken the time to prepare materials for the COMBI and act as contacts:

Tamara Bushnik, PhD, Jerry Wright, BA, Laura Jamison, and Maurice Rappaport, MD, PhD at Santa Clara Valley Medical Center (**Lead Center**)

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Corwin Boake, PhD and Angelle Sander, PhD at The Institute for Rehabilitation Research

James F. Malec, PhD, LP at the Mayo Medical Center

Mark Sherer, PhD, ABPP-Cn and Risa Nakase-Thompson, PhD at the Mississippi Methodist Rehabilitation Center

Tom Novack, PhD at University of Alabama at Birmingham

Marcel Dijkers, PhD at Mount Sinai School of Medicine
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Flora Hammond, MD at Charlotte Institute of Rehabilitation

Jeffrey Kreutzer, PhD and Jenny Marwitz, MA at Medical College of Virginia

Tessa Hart, PhD at Moss Rehabilitation Research Institute

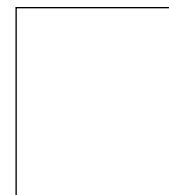
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UPDATE

Center for Outcome Measurement
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<www.tbims.org/combi>

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